cause they may be thought to have played a part in causing the absorption of the hydrocele.

Now, I must state, that no *local* remedies whatever had been employed in this case with the view of dispersing the affection; but Mr. —— has been taking, for more than a year, the iodide of potassium, with decoction of sarsaparilla, for secondary syphilitic symptoms. Whether the exhibition of these medicines had any effect in causing the absorption of the hydrocele, is a point I leave for your readers to speculate upon, merely stating my own opinion, which is, that they were perfectly innocent of the cure. I am not aware that the iodide of potassium administered internally has any influence in causing the absorption of such serous effusions, whatever power it may have in removing glandular enlargements and the like. I look upon the employment of the remedies, and the absorption of the fluid as a mere coincidence, and not as cause and effect. My patient took the above medicine long before the hydrocele appeared, and during its production, and for some time before the tapping, iodine was freely used externally, as well as taken internally, with a view to its dispersion, but without the least beneficial result; on the other hand, the fluid steadily increased under its use. I should rather look for the cure to have been effected by the active horse-exercise and the over-indulgence in stimulants. These combined would doubtless set up a brisk action in the tunica vaginalis and testis generally, and under such a condition of the organ, the absorption might reasonably be looked for, if it might be looked for under *any* circumstances,—of course, I mean no remedies being used. Sir Benjamin Brodie has mentioned two unequivocal instances of spontaneous cure of hydrocele from inflammation of the tunica vaginalis accidentally taking place, and Dr. Watson narrates a case where rapid absorption followed a fit of drunkenness.—*Prov. Med. and Surg. Journ.*, Nov. 4th, 1846.

OPHTHALMOLOGY.

65. *Structure of the Vitreous Body.*—The laminated structure of the vitreous body has been already demonstrated by Pappenheim[*] and by Brücke,[†] the latter of whom made his observations chiefly on the eyes of sheep. The truth of their account has been in great measure confirmed by **Hannover**,[‡] so far, at least, as concerns the eyes of the horse, ox, sheep, cat and dog; but not as regards the human eye, in the vitreous body of which a different structure exists. Hannover's account goes further than that either of Pappenheim or of Brücke; he describes the vitreous body in the eyes of the above-named animals as composed of concentric laminæ, each one of which forms a complete shut sac, so that the substance of the body is almost entirely made up of a number of these concentric sacs, inclosed one within the other. In the eye of the cat, dog and ox, the individual laminæ (which are very thin) lie so closely and compactly one within the other, that the corpus vitreum appears as one solid mass. In the vitreous body of the human eye this peculiar laminated structure does not occur; an arrangement which is almost exactly represented by the structure of an orange being substituted in its place. If a perpendicular section be made of a human corpus vitreum, which has been hardened by maceration in chromic acid, the cut surface will present a number of fine striæ, converging towards the centre, which are so many radii of sectors of which the body is composed. The axis towards which these sectors converge may be represented by an imaginary line drawn through the vitreous body from the centre of the optic nerve, just previous to its expansion into the retina, to the middle of the cornea, consequently it corresponds exactly to the canalis hyaloideus, which transmits the arteria centralis through the centre of the vitreous body. In the hardened eyes of new-born children, in whom this artery is pervious,[§] it is more evident than in adults that the hyaloid canal forms the axis towards which all the sectors converge. The striæ or radii of the sectors

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[*] Specielle Gewebelehre des Auges, 1842, p. 182.

[†] Müller's Archiv., 1843, p. 345; and 1845, p. 130.

[‡] Ibid., 1845, p. 471.

[§] In adults he never succeeded in finding either the canal or the artery pervious.

do not quite reach the canal, or at any rate they become so fine before they do so, that they are invisible, and the portion of the corpus vitreum immediately around the canal appears structureless and homogeneous; this seemingly structureless portion is much larger in children than in adults. Hannover says he has succeeded once or twice in counting about 180 radii, consequently in these eyes the corpus vitreum would be composed of so many sectors. He has not been able to determine whether each sector has its own wall, or whether one wall is common to each two contiguous sectors; he is of opinion that the interior of each sector is not further subdivided into compartments. The tissue composing the walls is a structureless transparent membrane, on which are scattered numerous minute granules; it proceeds from the tunica hyaloidea. Concerning this hyaloid membrane, M. Hannover offers some new particulars. He states that at the anterior edge of the retina, the hyaloid membrane divides into two layers, the posterior of which dips into the substance of the vitreous body to form the walls of the sectors, whilst the anterior becomes united with what is called (improperly so, according to Hannover) the tunica vasculosa of the retina; from this point of union the anterior layer then passes down and forms the posterior wall of the canal of Petit, advances forward, and is reflected up along the ciliary body, forming thus the anterior wall of the canal of Petit. From this splitting of the hyaloid membrane into two layers results a circular space or canal hitherto undescribed. Whether this canal possesses any fluid contents, or what is the purpose served by it, Hannover has not been able to determine.—*Ranking's Abstract*, Vol. III.

66. *Movements of the Iris.*—To prove that the movements which take place in the iris upon irritating the third pair of nerves are reflex in their character, and do not depend upon direct irritation of any motor fibres of the iris contained in the trunk of the third nerve, VOLKMANN[*] adduces the fact that in some cases at least, the contracted or dilated state of the iris (according as the case may be), which is induced by irritation of the third nerve, continues for some time after removal of the irritation, whereas the several muscles of the eye which have been at the same time thrown into contraction, become relaxed the moment the irritation is withdrawn. The contraction of the muscles depends on direct irritation of their motor nerves, whereas the action of the iris, Volkmann thinks, is the result of centripetal fibres being irritated, and this irritation reflected upon motor fibres through the medium of the ophthalmic ganglion, which therefore acts as a nervous centre to the iris.[†]—*Ibid.*

67. *Flaccidity of the Iris after Death.*—M. RIPPAULT[‡] proposes to apply the circumstance of the iris becoming flaccid after death as a means of distinguishing between real and apparent death; for in the former case he finds that the pupil loses its circular form when the globe of the eye is compressed in two opposite directions; but, on the contrary, retains its round form so long as life and the power of vision remain.—*Ibid.*

68. *Adjusting Power of the Eye to Vision at different distances.*—To prove that the capacity which the eye possesses of adapting itself to distinct vision at different distances is due to the action of the muscles of the eye, which by their compression increase the antero-posterior diameter of the globe, and so, by the greater or less amount of their contraction, regulate the focal distance to the required degree, M. FRESTET[§] adduces the circumstance that persons in whom the third pair of nerves (and consequently the majority of the muscles of the eye) is paralyzed, become presbyopic, and that this condition is remedied by the use of bi-convex

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[*] Müller's Archiv., Heft v., 1845, p. 426.

[†] Dr. Radclyffe Hall has published an interesting paper on the "Functions of the Ophthalmic Ganglion," (Edin. Med. and Surg. Jour., April, 1846.) Professor Valentin's researches on the "Functions of the Nerves of the Orbit," are translated by Mr. France into the London Med. Gazette, commencing in the No. for Feb. 20, 1846.

[‡] Comptes Rendus, 23 Mars, 1846.

[§] Trans. of Acad. Roy. des Sciences, Paris, Aug. 11, 1845, in Encyclog. des Sci. Méd., Sept. 1845. The several views on this subject have been recapitulated by M. Adelon, in the article "Vue," in the Dict. de Méd., tom. xxx., 1846.